

**STAFF REPORT**

**CONTINUATION OF HEARING  
CITY OF COLFAX  
WASTEWATER TREATMENT FACILITY  
PLACER COUNTY**

This Staff Report discusses issues related to the continuation of the public hearing held by the Regional Water Quality Control Board, Central Valley Region (Regional Water Board) on 22 June 2007, concerning the tentative NPDES permit and Cease and Desist Order (CDO) for the City of Colfax

**BACKGROUND**

The City of Colfax (Discharger) owns and operates a Wastewater Treatment Plant (Facility) that provides sewerage service for the community of the City of Colfax and serves a population of approximately 1,800. The Facility was initially designed to dispose of effluent on land, but was unable to operate without some degree of surface water discharge. Consequently, the Facility has been subject to regulation under an NPDES permit since 1974. The discharge from the Facility to an unnamed tributary to Smuthers Ravine is currently regulated by Order 5-01-180, adopted on 14 June 2001. At the same time, the Regional Water Board adopted CDO No. 5-01-181 that established time schedules for meeting the discharge prohibitions and effluent limitations based on tertiary treatment under Order No. 5-01-180. To comply with the permit and CDO, the Facility replaced the old wastewater treatment system described in the existing Order No. 5-01-180 with an interim tertiary treatment system. The interim system provides for domestic wastewater, collected seepage from an on-site storage reservoir, and storm water to be treated in the interim tertiary treatment system and discharged to the unnamed tributary to Smuthers Ravine, a water of the United States. Smuthers Ravine is a tributary to the North Fork of the American River via Bunch Canyon, within the Sacramento River Watershed.

Sewer fees for the community are currently \$60/month for each equivalent dwelling unit (EDU) for wastewater treatment, and \$74.40/year for Infiltration and Inflow (I/I) reduction work.

The Discharger applied for reissuance of its waste discharge requirements (NPDES permit) for the discharge from the Facility to Smuthers Ravine. The Regional Water Board held a hearing on 21 June 2007 to consider this matter, and decided to continue the hearing to address certain issues, including:

- Ammonia limitations
- Nitrate compliance schedule and interim limitations
- Discharge flow limitations
- Changes to time schedules and due dates

The tentative NPDES permit and CDO were issued on 27 August 2007. Written and oral comments were required to be limited to the proposed revisions identified in "underline/strike-out" text in the tentative WDRs and CDO, addressing only the issues that are the basis of the continuation of the public hearing.

Comments were received by the Discharger, Allen and Nancy Edwards, Lawyers for Clean Water, and Michael Garabedian for Friends of the North Fork. Some of the comments received addressed issues outside the scope of the continued hearing and were not accepted into the record. Copies of the comments posted on the website and placed in the file as part of the agenda package were marked to indicate those comments which were not accepted into the record. A Response to Comments was prepared for the comments received that were within the scope of the noticed hearing item. Note that for the most part the comments that are outside the scope of this hearing notice were duplicative of comments submitted earlier and are already part of the record.

Following is a discussion of the issues to be addressed in the continued hearing.

### **AMMONIA LIMITATIONS**

After the agenda was prepared for the June 2007 Regional Water Board meeting, staff determined that the final ammonia limitations in the tentative Order had been incorrectly calculated, and that additional data should have been utilized in the analysis to develop both the interim and final effluent limitations. The additional data indicated that significantly higher ammonia concentrations were present in the effluent, and this provided for the interim performance-based limitation to be increased. Staff discussed some late revisions regarding these issues at the June hearing, indicated that the changes were significant, and that a 30 day public review was necessary prior to adoption. The changes were shown in the tentative Order issued 27 August 2007.

Comments were received on the interim ammonia limitation from Lawyers for Clean Water, who requested that the interim limit be reduced from 16.1 mg/l to 5 mg/l. Staff established the interim limit based on current performance, and does not believe the Discharger could comply with the interim limit proposed by the commenter until the new wastewater treatment plant is constructed.

### **NITRATE COMPLIANCE SCHEDULE AND INTERIM LIMITATIONS**

The tentative NPDES permit considered at the June 2007 hearing included a final effluent limitation for nitrate of 10 mg/l, and did not include a compliance schedule. Staff determined that, as the Discharger took steps to nitrify the wastewater to remove ammonia, that nitrate concentrations would likely increase,

bringing the Discharger into non-compliance with its nitrate effluent limitation. Therefore, staff recommended at that hearing that a nitrate compliance schedule and interim effluent limitations be included in the Orders, and that a 30 day public review of those changes was necessary prior to adoption.

The tentative NPDES permit, issued on 27 August 2007 included a time schedule to meet the final limitation by 1 January 2009, and calculated an interim limitation based on measured ammonia and nitrate concentrations in the effluent.

In preparation of the agenda, staff determined that the time schedule should have been included in the Cease and Desist Order, because the limitations were based on the chemical constituents objective rather than a new interpretation of the narrative objective for protection of receiving water beneficial uses. The agenda version of the Orders shows the revisions made to move the compliance schedule and interim limitations to the CDO. Neither the schedule or the limitations were modified by moving them to the CDO, and therefore the change is not a significant modification of the Orders.

Comments on the nitrate limitation were received from Lawyers for Clean Water, with concerns that the proposed new wastewater treatment plant does not include provisions to denitrify the effluent to remove nitrate, and that the Discharger would violate the proposed compliance schedule. Staff responded to the comment by stating that the CDO requires the Discharger to submit a report by 1 January 2008 that outlines its method and schedule to comply with the nitrate limitation, and requires full compliance with nitrate effluent limitations by 1 January 2009. The new wastewater treatment plant design proposes to meet a total nitrogen limit of 10 mg/l, which should provide for compliance with the ammonia and nitrate limitations. The time schedule requires the Discharger to immediately address any design deficiencies in the current proposed facility such that compliance with the nitrate limitations can be achieved. We note that the Discharger has not provided any comments that the proposed schedule is not achievable.

## **DISCHARGE FLOW LIMITATIONS**

The tentative NPDES permit considered at the June 2007 hearing included average daily dry weather flow limitations 0.2 mgd for the interim treatment plant, and 0.275 mgd for the new treatment plant. Much of the collection system in Colfax is up to 100 years old, and is subject to excessive I/I into the collection system during wet weather. As a result, the Discharger cannot comply with the flow limitations. Therefore, staff determined that the CDO should include a time schedule intended to meet the effluent flow limitations, and those changes must be subject to public comment.

The tentative CDO issued on 27 August 2007 includes requirements to prepare and implement a Capital Improvement Program to provide repairs to the collection system by 1 March 2008; submit and immediately implement a plan to complete a detailed assessment of the condition of the collection system by 1 March 2008; install and maintain flow monitors at key locations in the collection system to evaluate problem areas and measure progress at reducing I/I by 1 October 2008; and to submit annual reports by 1 February each year that summarize:

- 1) Flow monitoring data;
- 2) Status and results of the condition assessment;
- 3) Collection system repairs completed;
- 4) Estimates of I/I reduction achieved;
- 5) Identifies budget and work to be conducted during the next year

Finally, the CDO requires the Discharger to submit a summary report providing technical documentation regarding overall compliance with effluent flow limitations by 1 October 2013. Following completion of these tasks, the CDO provides that the Regional Water Board will determine if I/I corrections are providing adequate reductions in peak flows, if additional I/I corrections should be completed, or if effluent flow limitations should be modified to increase allowable flows to surface waters. In the interim, the Discharge cannot exceed a maximum daily discharge flow rate of 0.65 mgd while the interim plant is operational, and 0.5 mgd after the new wastewater treatment plant is operational.

Staff received comments pertaining to the effluent flow limitations and the work requirements to address I/I.

Allen and Nancy Edwards commented that the effluent flow limits should be limited to 0.16 mgd rather than 0.2 mgd (currently) and 0.275 mgd (after construction of the new wastewater treatment plant). Staff believes the record supports the flow limits in the proposed Orders, and addressed the issue in the Response to Comments.

Comments were received from the Discharger, Allen and Nancy Edwards, and Lawyers for Clean Water regarding the CDO provisions to conduct work to eliminate excessive I/I.

The Discharger states that the requirements are not reasonable, and requested the language be modified to require "a good faith effort" to reduce I/I, as it has not achieved substantial reductions when I/I projects have been performed in the past, and that it should not be held to a requirement to eliminate excessive I/I. Alternatively, Allen and Nancy Edwards and Lawyers for Clean Water requested that the CDO provide a more aggressive schedule with specific milestones to rebuild the collection system to eliminate I/I within three years. Staff believes it is not reasonable to expect the collection system to be completely repaired within 3

years. Corrective actions to reduce I/I can be very expensive and may not completely eliminate the problems. It may take several years of monitoring and repair/retrofit of the system before significant reductions are observed. It remains uncertain whether Colfax's proposed \$90,000/year budget for I/I repairs will be adequate to accomplish significant progress, and may need to be increased to ultimately correct significant I/I problems. Due to the costs for corrective actions and the uncertainty of the results, the CDO was drafted to provide that the City conduct work to repair its collection system over the term of the NPDES permit, and allows the Regional Water Board to determine if additional corrections are needed, or if discharge flow limitations should be modified after work is completed for the next permit term. Full compliance with the flow limitations are not required until the Regional Water Board determines, in another public hearing, that this would be an appropriate decision. Staff believes the requirements are reasonable, and an appropriate step to address the water quality issues in this matter.

Allen and Nancy Edwards and Lawyers for Clean Water also commented that the steps the Discharger must take to correct I/I issues are out of order, and that a detailed assessment of the collection system should precede the development of a Capital Improvement Program (CIP). Staff believes that, because the City already completed an I/I study in 2005 that identified projects needing to be completed to correct some problem areas, the CDO should require the Capital Improvement Program be implemented at the same time as the detailed assessment of the condition of the collection system. Additional monitoring of the collection system, required by the fall of 2008, will provide further information regarding additional corrections needed. Staff does not believe it is appropriate to delay already identified significant collection system repair work pending further studies. As additional studies and monitoring are completed, in accordance with the Order, additional work priorities will be identified.

Finally, Allen and Nancy Edwards and Michael Garabedian indicated that they believe there is evidence that the collection system also experiences exfiltration (leakage out of the system) into the headwaters of Bunch Creek, that this and other sources of pollutants cause adverse impacts to receiving waters, and requested additional surface water monitoring by Colfax to evaluate this condition. Staff believes the work required pursuant to the CDO will provide information to assess I/I, as well as potential leakage (exfiltration) from the collection system. Based upon the information, additional monitoring and/or corrective actions may be appropriate. However, the situation at this time is not clear, and there may also be other sources of pollutants such as from septic tanks in the area, and storm water runoff. Since the Orders under consideration regulate only the sewage collection system and wastewater treatment plant, the Discharger should not be required to evaluate under these Orders the impacts from other pollutant sources.

## **CHANGES TO TIME SCHEDULES AND DATES**

The last issue requested to be included in the continued hearing was in regards to time schedules and dates in the Orders. Staff had included this request to allow a consideration of date extensions, if necessary, due to the delay in adopting the Orders from June to October. However, in the process of drafting revisions, no extensions were proposed for this purpose.

## **OTHER CHANGES**

Based on comments submitted, and further review of the tentative Orders, staff made some additional minor edits to correct typographic and other minor errors. All minor changes made since the tentative Orders were issued, including those discussed above, are shown in redline strikeout format in the agenda version of the Orders.